



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/705,566	11/03/2000	William H. Kump	202920	6672

23460 7590 07/17/2002

LEYDIG VOIT & MAYER, LTD  
TWO PRUDENTIAL PLAZA, SUITE 4900  
180 NORTH STETSON AVENUE  
CHICAGO, IL 60601-6780

EXAMINER

MARTIN, ANGELA J

ART UNIT	PAPER NUMBER
----------	--------------

1745

3

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/705,566

Applicant(s)  
Kump et al.

Examiner  
Angela J. Martin

Art Unit  
1745



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov 3, 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, 11, and 12 is/are allowed.
- 6) ☒ Claim(s) 10 and 13-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other:

Art Unit: 1745

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 4, 13, and 15 are objected to because of the following informalities:

In claim 4, the second line of the claim states, "at least two the flanges" which is grammatically incorrect. Appropriate correction is required.

Claim 13 recites "a generally cylindrical venting plug body." The Examiner suggests using the word "substantially" instead of the word "generally" as the Applicant has used the word "substantially" in several of the other claims, such as claims 14 and 19.

In claim 15, the second and third lines of the claim state, "in the form of a threads" which is grammatically incorrect. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 10 and 13-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 1745

Claim 10 discloses "a footprint" which is not disclosed in the specification.

Claims 13, 16, 19, and 20 disclose "a slide" which is not disclosed in the specification.

Claims 14, 15, 17, and 18 are dependent on claim 13.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 13-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 16 recites the limitation "said step of molding a first material comprises the step of injection molding" in the method of producing a vent plug. There is insufficient antecedent basis for this limitation in the claim.

7. Regarding claims 13 and 18, the term "demolding" renders the claim indefinite because it is unclear whether the Applicant intended to use the word "ejecting" instead; "ejecting" is used throughout the specification, however "demolding" is an ambiguous term. Claims 14-18 are dependent on claim 13. Appropriate correction is required.

8. The term "in the vicinity of" in claim 19 is a relative term which renders the claim indefinite. The term "in the vicinity of" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would

Art Unit: 1745

not be reasonably apprised of the scope of the invention. Claim 20 is dependent on claim 19.

Appropriate correction is required.

*Allowable Subject Matter*

9. Claims 1-9, 11, and 12 are allowed.

10. The following is an examiner's statement of reasons for allowance:

The Applicant claims a venting plug for use with a wet, lead-acid electric storage battery comprising a container and a cover defining at least one cavity, the cover defining at least one cylindrically shaped process hole associated with the cavity, the plug being adapted for insertion into the process hole to provide gaseous communication between the cavity and the atmosphere, the venting plug comprising a housing having a cylindrical plastic body and a top, the body being molded of plastic and having an axis, a coupling portion having an outer surface, the coupling portion comprising at least a portion extending in a plane disposed at an angle to the axis, the outer surface of the coupling portion displaying at least one mold parting line that does not extend in a plane perpendicular to the axis, and an outer sealing portion, the sealing portion comprising an outer annular sealing surface, the sealing surface displaying no mold parting line.

Applicant claims a wet, lead-acid storage battery, comprising a container and a cover defining at least one cavity, the cover defining at least one cylindrically shaped process hole associated with the cavity, the plug being adapted for insertion into the process hole to provide gaseous communication between the cavity and the atmosphere, the venting plug comprising a housing having a cylindrical plastic body and a top, the body being molded of plastic and having

Art Unit: 1745

an axis, a coupling portion having an outer surface, the coupling portion comprising at least one coupling flange, at least a portion of the coupling flange extending in a plane disposed at an angle to the axis, the outer surface of the coupling portion displaying at least one mold parting line that does not extend in a plane perpendicular to the axis, and an outer sealing portion, the sealing portion comprising an outer annular sealing surface, the sealing surface displaying no mold parting line, a seal disposed adjacent the sealing surface and elastically deformable between the sealing surface and the process hole.

In the prior art of record, Geibl et al., U.S. Pat. No. 6,143,438, teach a vent cap system for a battery which includes a flange for forming a fluid tight seal. Hakarine, U.S. Pat. No. 6,146,784, teach a venting system for a lead-acid battery having vent plugs which provide a seal molded onto the vent body. Adams et al., U.S. Pat. No. 5,422,199, teach a lead-acid battery having a venting system comprising a venting plug in each process hole. However, the prior art of record do not disclose a vent plug comprising a coupling portion having an outer surface, the coupling portion comprising at least a portion extending in a plane disposed at an angle to the axis, the outer surface of the coupling portion displaying at least one mold parting line that does not extend in a plane perpendicular to the axis, and an outer sealing portion, the sealing portion comprising an outer annular sealing surface, the sealing surface displaying no mold parting line.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

Art Unit: 1745

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

11. Claims 10, 16, and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. Claims 14-18 and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

13. Claims 13 and 19 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, first and second paragraph, set forth in this Office action.

14. The following is a statement of reasons for the indication of allowable subject matter:

The Applicant claims a method of producing a venting plug for use with a wet, lead-acid electric storage battery comprising a container and a cover defining at least one cavity, the cover defining one or more cell cavities, the cover defining cylindrically shaped process holes associated with each cell cavity, said venting plug adapted for insertion into the process holes to provide gaseous communication between the cell cavities and the atmosphere, the method comprising the steps of providing a mold for molding a cylindrical venting plug body, the mold having an upper half and a lower half, the lower half comprising a solid plate for forming at least one sealing surface of the plug body without a parting line and at least one slide for forming at least one coupling flange along a peripheral surface of the venting plug body, molding a venting plug body

Art Unit: 1745

having at least one sealing surface and a coupling flange, opening the mold, and demolding the venting plug body having a sealing surface that displays no mold parting line.

Applicant claims a mold for molding the body of a venting plug for use with a wet, lead-acid electric storage battery comprising a container, a cover, the container and cover defining at least one cell cavity, the cover defining a cylindrically shaped process hole associated with the cell cavity, the venting plug having a body having at least one sealing surface adapted to receive a seal and to be inserted into the hole to provide gaseous communication, the body having at least one flange, the mold comprising an upper half and a lower half, the lower half comprising a solid plate for forming the sealing surface on the venting plug body whereby the solid plate does not result in a mold parting line in the sealing surface.

In the prior art of record, Geibl et al., U.S. Pat. No. 6,143,438, teach a vent cap system for a battery which includes a flange for forming a fluid tight seal. Hakarine, U.S. Pat. No. 6,146,784, teach a venting system for a lead-acid battery having vent plugs which provide a seal molded onto the vent body. Adams et al., U.S. Pat. No. 5,422,199, teach a lead-acid battery having a venting system comprising a venting plug in each process hole. However, the prior art of record do not disclose a method of producing a venting plug for use with a wet, lead-acid electric storage battery comprising steps of providing a mold for molding a cylindrical venting plug body, the mold having an upper half and a lower half, the lower half comprising a solid plate for forming at least one sealing surface of the plug body without a parting line and at least one slide for forming at least one coupling flange along a peripheral surface of the venting plug body, molding



Art Unit: 1745

a venting plug body having at least one sealing surface and a coupling flange, opening the mold, the venting plug body having a sealing surface that displays no mold parting line.

*Examiner Correspondence*

15. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Angela J. Martin whose telephone number is (703) 305-0586. The Examiner can normally be reached on Monday - Friday from 8:00am to 4:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Patrick Ryan, can be reached at (703) 308-2383.

In order to transmit an official fax/non-final, the number is (703) 872-9310. In order to transmit an official fax/after final, the number is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

AJM

A handwritten signature in black ink, appearing to read "Angela J. Martin". The signature is written in a cursive, flowing style.